

# Work Order ID 86760

\*86760\*

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Item ID: D3401-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Tow Cap Assembly  
 Start Date: 7/06/12 Start Qty: 20.00 \*20\* Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 20.00 \*20\* Customer:  
 Reference:

Approvals: Process Plan: ✓ Date: 12-07-9 Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3401	Rev B								
100	BAND SAW	0.00				20	0		
*100*									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	Cut Blanks 4.20" Long			12/8/7					
110	DOOSAN LATHE	0.00				20	0		
*110*									
Doosan	Memo	0.00							
Doosan Lathe	Turn as per Folio FA532 & Dwg D3401			12/8/7					
	Folio Rev: _____ Dwg Rev: _____								
	Deburr								
120	QC2- Inspect parts off machine FAI/FAIB	0.00				20	0		
*120*									
QC	Memo	0.00							
Quality Control				12/8/7					

W/O: 86760		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3401-041 PAR #: \_\_\_\_\_ Fault Category: Machining NCR: Yes No DQA: 12/12 Date: 12/01/02  
 Resolution: \_\_\_\_\_ Disposition: Scrap QA: N/C Closed: 12/11/05 Date: 12/11/05

NCR: 12-1984		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/1/13	130	ORIGIN OFFSET WAS WRONG Thickness of loop is 0.450 instead of 0.550. (Qty 12)	DAS 12/1/13	SCRAP.	D.A. 12/09/14 ☹	DAS 16 12/1/14	DAS 16 12/1/13	DAS 16 12/09/14
		R.C. operatr enter wrong informati in HAAS operatr error		124.59 x 2 #249.18				

NOTE: Date & initial all entries

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1  Memo Machine as per Folio FA532 and Dwg D3401 Dwg Rev: <u>B</u> Folio Rev: <u>AA</u> Identify as D3401-1 Deburr & Buff rad as per Dwg D3401	0.00 0.00				18	2		
135 *135* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00 0.00				18			
140 *140* QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00				18			

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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## Hand Finishing

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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 Start Date: 7/06/12 Start Qty: 20.00 \*20\* Cust Item ID:  
 Required Date: 8/10/12 Req'd Qty: 20.00 \*20\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
*180*									
Powdercoat	Memo	0.00							
Powder Coating	START TIME: 2:30								
	OVEN TEMPERATURE: 320 °F								
	FINISH TIME: 3:00								
190	QC3- Inspect Part Finish	0.00							
*190*									
QC	Memo	0.00							
Quality Control									
195	Assemble as per dwg	0.00							
*195*									
HandFinish	Memo	0.00							
Hand Finishing									

18x 0 12/10/24 2:30  
 12/10/24  
 18x 0 12/10/25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200 <b>*200*</b> QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00				18	0	12-10-25	
210 <b>*210*</b> Packaging Packaging	Identify as per dwg & Stock Location: <u>FP-2</u>  Memo	0.00  0.00				x18	0	Ill n/10/27	
220 <b>*220*</b> QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00						12/10/29	

12-10-26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

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Work Order ID: 86760

Parent Item: D3401-041

Parent Item Name: Tow Cap Assembly

Start Date: 7/06/12

Required Date: 8/10/12

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP A05.09.01New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6R3.500 6061 RD bar 3.50		Purchased	No			200	f	8.8400	0.35	7.368422			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				MAT036		8.84							
				119231		0.4							
				120708		0.44							
				122321		8							
NAS1330C3KB116 Insert		Purchased	No	122521		100	Each	418.0000	4				
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST276		418							
				102606		18							
				103337		400							

DAS  
13  
9-63  
12/9/7  
7.5  
72  
12/10/25  
X72

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

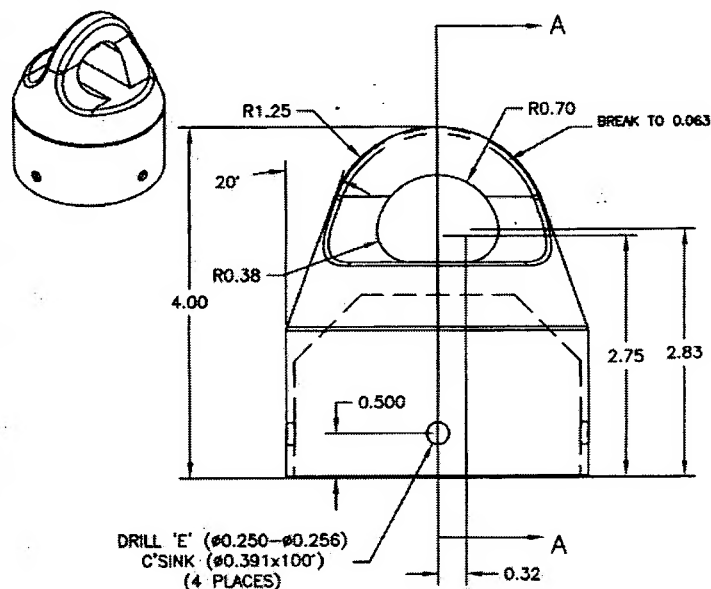
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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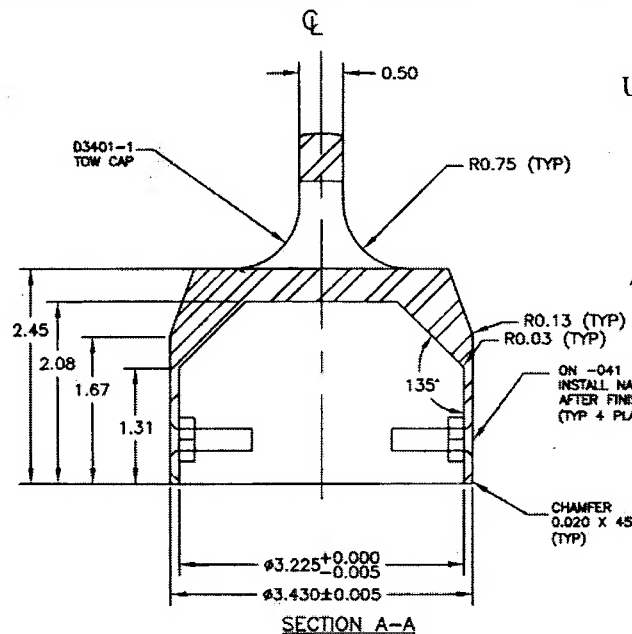
STATION COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. *96760*

**DART**

*12-07-9*



**D3401-1 TOW CAP**



**D3401-1/-041 TOW CAP**

**D3401-1 TOW CAP**

- 1) MATERIAL: MAKE FROM ALUMINUM 6061-T6  $\phi 3.500$  ROUND BAR PER QQ-A-225/8 OR AMS-QQ-A-200/8 (REF. DART SPEC M6061T6R3.5000)
- 2) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.015
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

**D3401-041 TOW CAP**

- 1) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1  
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3

**D3401-041 TOW CAP PARTS LIST**

QTY	PART NUMBER	DESCRIPTION
1	D3401-1	TOW CAP
4	NAS1330C3KB116	INSERT

DESIGN	PH	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED		APPROVED		PORT HADLOCK, WA
DATE	05.06.09	TITLE	TOW CAP	REV. B
				SHEET 1 OF 1
				SCALE 1:2

RELEASED  
05-08-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries